

CLAIMS

I claim:

1. A watermarking system comprising:

a watermark encoder that is configured to apply a watermark to each of a plurality of
5 segments of content material to form a plurality of watermarked segments, and

a size generator that is configured to control a size of the watermark that is applied to
each of the plurality of segments, so that at least two watermarked segments of the plurality of
watermarked segments have different watermark sizes.

10 2. The watermarking system of claim 1, further comprising:

a segmenter, operably coupled to the size generator and the watermark encoder, that is
configured to control a size of each segment of the plurality of segments, based on an output of
the size generator, wherein

15 the size of the watermark that is applied to each of the plurality of segments is based on
the size of each segment of the plurality of segments.

3. The watermarking system of claim 2, wherein

the size generator controls the size of each segment based on a random process.

20 4. The watermarking system of claim 3, wherein

the random process is initialized by a seed value that is based on one or more data items
in the content material.

5. The watermarking system of claim 3, wherein

25 the random process is initialized by a seed value, and

the watermarking system is further configured to include the seed value in at least one of
the plurality of watermarked segments.

6. The watermarking system of claim 1, wherein

the size generator controls the size of each watermark based on a random process.

7. The watermarking system of claim 6, wherein

5 the random process is initialized by a seed value that is based on one or more data items in the content material.

8. The watermarking system of claim 6, wherein

the random process is initialized by a seed value, and

10 the watermarking system is further configured to include the seed value in at least one of the plurality of watermarked segments.

9. The watermarking system of claim 1, wherein

15 the size generator is further configured to control a variance of the sizes of the plurality of segments.

10. The watermarking system of claim 1, wherein

the size generator is further configured to control the size of the watermark based on one or more sizes of other segments of the plurality of segments.

11. An encoding system comprising:

a segmenter that is configured to segment content material into a plurality of segments,
and

5 a size generator, operably coupled to the segmenter, that is configured to control a size of
each of the plurality of segments, so that at least two segments of the plurality of segments have
different sizes.

12. The encoding system of claim 11, further including

10 a watermark encoder that is configured to apply a watermark to each of the plurality of
segments of content material to form a plurality of watermarked segments.

13. The encoding system of claim 11, wherein

the size generator controls the size of each segment based on a random process.

15 14. The encoding system of claim 13, wherein

the random process is initialized by a seed value that is based on one or more data items
in the content material.

20 15. The encoding system of claim 13, wherein

the random process is initialized by a seed value, and

the encoding system is further configured to include the seed value in at least one of the
plurality of segments.

16. The encoding system of claim 13, wherein

25 the size generator further controls the size of each segment based on one or more sizes of
other segments of the plurality of segments.

17. A security system comprising:

a watermark detector that is configured to determine an information item from a watermarked segment of watermarked content material and to determine a size of the information item, and

5 an authorization device, operably coupled to the watermark detector, that is configured to determine an authorization of the watermarked segment, based on the information item and based on the size of the information item.

18. The security system of claim 17, further including

10 a random size generator, operably coupled to the authorization device, that is configured to provide an authorized size of the information item based on a seed value, wherein

the authorization device is configured to determine the authorization based on a comparison of the size of the information item and the authorized size of the information item.

15 19. The security system of claim 18, wherein

the seed value is included in the watermarked content material.

20. A media for transferring watermarked content material, including:

a plurality of watermarked segments corresponding to the watermarked content material,
the watermarked segments each include a watermark that includes an information item,
wherein

5 at least two of the plurality of watermarked segments have information items of different
sizes, and

the different sizes of the information items facilitate a verification of the watermarked
content material.

10 21. The media of claim 20, wherein

the watermarked content material includes a seed value for a random number generator
that facilitates the verification of the watermarked content material based on the different sizes of
the information items.

15 22. The media of claim 20, wherein

the watermarked content material includes a list of authorized sizes of the information
items of the at least two watermarked items that facilitates the verification of the watermarked
content material based on the different sizes of the information items.

23. A media for transferring content material, including:

a plurality of segments corresponding to the content material,
wherein

at least two of the plurality of segments are of different sizes, and

5 the different sizes of the at least two of the plurality of segments facilitates a verification
of the content material.

24. The media of claim 23, wherein

10 the content material includes a seed value for a random number generator that facilitates
the verification of the content material based on the different sizes of the segments.

25. The media of claim 23, wherein

15 the content material includes a list of authorized sizes of the segments that facilitates the
verification of the content material based on the different sizes of the segments.

26. A security system comprising:

a size determinator that is configured to determine a size of one or more segments of a plurality of segments that form a data set, and

5 a comparator that is configured to compare the size of the one or more segments of the plurality of segments to a specified size corresponding to the one or more segments of the plurality of segments.

27. The security system of claim 26, further including

10 a pseudo-random generator that is configured to determine the specified size corresponding to the one or more segments of the plurality of segments, based on a seed value that is associated with the data set.

continued on next page